

MINUTES  
ENGINEERING OPERATIONS COMMITTEE  
JANUARY 6, 1994  
9:00 a.m.  
EXECUTIVE CONFERENCE ROOM

Attendance:	R. A. Welke	W. T. Lebel
	G. D. Taylor	D. T. Vandenberg
	L. A. Kinney	J. W. Reincke
	H. W. Linne	J. D. Culp
	C. J. Arnold	P. F. Miller
	J. T. Lavoy	
Guests:	L. E. DeFrain	D. L. Smiley
	W. C. Turner	I. B. Patel

**OLD BUSINESS**

**1. Role of EOC and its Subcommittees - R. A. Welke**

The Engineering Operations Committee has two appointed subcommittees, the Bituminous Advisory Committee and the Pavement Selection Review Committee. Their roles and responsibilities were reviewed and the following decisions reached:

1. Specific technical questions will be referred to the appropriate subcommittee (which are both staffed with the bureau's technical experts). The subcommittees will either issue a resolution or make a recommendation back to EOC when it involves policy.
2. The Pavement Selection Review Committee will continue to review those pavement projects that meet the criteria contained in Design IM #410 R and submit recommendations to EOC when appropriate.
3. The Bituminous Advisory Committee will review and approve all district or division innovations or deviations from standard practice before the project is advertised.
4. Research reports involving pavement design or bituminous issues will be reviewed by the appropriate subcommittee before being approved by EOC.

- Action:**
1. Review Operating Instruction 3000.01, dated 08-12-80, on the Engineering Operations Committee at the February 3, 1994, meeting.
  2. The secretary of EOC will direct technical issues and research reports to the Bituminous Advisory Committee and/or the Pavement Selection Review Committee for their action and/or recommendation to EOC.
  3. R. A. Welke will issue a memo to the bureau staff defining the role and responsibilities of the Bituminous Advisory Committee (draft to be reviewed by EOC at the February 3, 1994, meeting).
  4. The Pavement Selection Review Committee will present a proposal on February 3, 1994, concerning projects they will approve without EOC review. They will also generate a regular submittal of pavement selection statistics for EOC's information.
  5. Materials and Technology Division is to work on setting up a

computerized tracking system for recalling issues from past EOC minutes.

2. **Ride Quality Measurement Equipment Update - J. W. Reincke**

Leo DeFrain, Supervising Engineer of the Instrumentation and Data Systems Unit, Materials and Technology Division, gave an update on the development of a Lightweight Inertial Roadway Analyzer (LIRA), which measures pavement roughness in terms of ride quality. The laboratory has one unit ready for use now and a second unit will be available by March 1994. Industry is having two additional units built independently, which will also be operating by spring. The current ride quality specification allows the contractor the option of evaluating ride quality using either LIRA or the California Profilograph.

- Action:**
1. Construction Division will work with Leo DeFrain to test run 1993 and 1994 construction projects with LIRA.
  2. Jon Reincke is to initiate the process for applying for a patent for LIRA, which includes several ideas invented by department personnel.

3. **Bituminous Quality Assurance Specifications - Use by Local Government Agencies - P. Miller**

Paul Miller reported that local agencies are currently reluctant to adopt the department's QC/QA specifications for bituminous mixtures. (Only one county has tried to date.) They are cautiously waiting to see how the new mixtures perform in service before adopting.

- Action:**
- Paul Miller will schedule opportunities for the bureau's bituminous staff engineers and MAPA representatives to explain the objectives and details of our bituminous QC/QA specifications to local agency engineers.

**NEW BUSINESS****1. Value Engineering Program - R. A. Welke**

FHWA is beginning to emphasize the importance of a formal value engineering program within the state DOTs. In the future it may become a condition of receiving federal aid. Value engineering may be applied at both the design and construction phases of a project. Additional staff will be required in both areas to effectively administer a program.

**Action:** Gary D. Taylor will report back to EOC on February 3, 1994, after meeting with FHWA to discuss value engineering.

**2. Special Provisions for Concrete Quality Control/Quality Assurance (QC/QA) Trial Projects - J. D. Culp**

Roger Till, in conjunction with the Design Division, submitted a list of 17 projects for the 1994 construction season for inclusion of the Concrete QC/QA Specification. (These specifications have been used on 11 projects to date, with both industry and district feedback leading to the current version.) The Materials and Technology Division staff will conduct training sessions in February and March for both contractor and department personnel on the use of the Concrete QC/QA Specifications. Full implement of this specification is anticipated for 1995.

**Decision:** Approve the proposed trial projects.

**3. Strategic Highway Research Program (SHRP) - Implementation of Developments and Products - R. A. Welke**

The SHRP research project resulted in over 100 new products or procedures applying to highway and bridge design, construction, operation and maintenance. Although the department is currently using or evaluating many of these innovations, we lack an organized and systematic approach to full implementation.

**Decision:** Jon Reincke, Engineer of Research and Technology, is appointed as SHRP Product Manager. He will chair a SHRP Implementation Committee composed of high level staff experts from various divisions and an FHWA representative. This committee will inventory, prioritize, evaluate, report and implement SHRP innovations. The evaluations may be done by the bureau's New Materials Committee at the discretion of the SHRP Implementation Committee. Recommendations for implementation should be referred to EOC for both communication and evaluation of the cost/benefit impact.

- Action:**
1. Divisions are to submit their staff committee representative to Jon Reincke.
  2. Jon Reincke will organize the committee and give quarterly progress reports to EOC.

4. **Joint Spacing for Jointed Reinforced Concrete Pavement - B. Turner**

The Pavement Selections Review Committee recommends that trial standards for joint spacing for jointed reinforced concrete pavement noted in Design IM 375-R, dated July 9, 1990, be formally adopted as follows:

ADT (Trucks) >5,000 27' joint spacing  
ADT (Trucks) <5,000 41' joint spacing

Until aggregate durability is significantly increased above the current specification, it is not advisable to increase the number of pavement joints in general.

**Decision:** Approve the recommended joint spacing standard.

**Action:** Design Division is to issue an updated informational memorandum on the joint spacing standard and reissue standard plan II-43.

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cc:

EOC Members

District Engineers

G. H. Grove

G. J. McCarthy

R. D. Till

J. Becsey

J. M. Ritchie

D. L. Coleman

L. K. Heinig

J. Murner

E. D. Winkler

H. J. Nyquist

W. C. Turner

D. L. Smiley

L. W. Martin

G. L. Mitchell

R. W. Muller

R. E. Nordlund

L. E. DeFraim

C. G. Cantrell

J. E. Norton

C. W. Whiteside

I. B. Patel

C. Roberts

G. H. Gallup

J. S. Polasek

A. G. Ostensen

G. J. Bukoski

W. Mathies